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Fujita et al.

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(54) **POLYMETHINE COMPOUNDS, METHOD OF PRODUCING SAME, AND USE THEREOF**

Synthesis of New Near-Infrared Fluorescent Labels." J. Org. Chem. 60 (1995): 2391-2395.\*

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(58) **Field of Search** ..... 430/270.1, 302, 430/944, 945, 270.11, 270.21; 101/453, 463.1; 548/469

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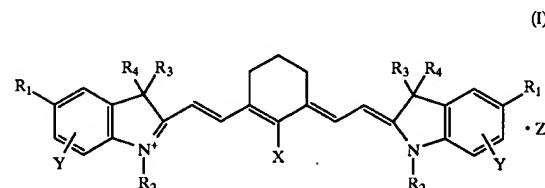
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(57) **ABSTRACT**

The invention provides near infrared absorbing materials showing high light-to-heat conversion efficiency and high sensitivity to lasers whose emission bands are within the range of 750 nm to 900 nm, original plates for direct printing plate making, and novel compounds which can be applied to such absorbing materials and plates. The compounds are polymethine compounds of the general formula (I). A detailed description of general formula (I) may be found in the specification.



wherein R<sub>1</sub> represents an alkoxy group which may be substituted; R<sub>2</sub> represents an alkyl group which may be substituted; R<sub>3</sub> and R<sub>4</sub> each represents a lower alkyl group or R<sub>3</sub> and R<sub>4</sub> taken together represent a ring; X represents a hydrogen atom, a halogen atom or a substituted amino group; Y represents an alkoxy group which may be substituted or an alkyl group which may be substituted; Z represents a charge neutralizing ion.

15 Claims, 15 Drawing Sheets

